VIRGINIA WILDLIFE

JULY 2004

TWO DOLLARS

Director's Column

William L. Woodfin, Jr

With the dog days of summer in full swing, it's comforting to know that hunting season is just around the corner, and this year should prove to be one of the best in memory. I'm excited to say that even with the disruption from Hurricane Isabel, more than a quarter of a million hunters, including 60,000 bow hunters and 120,000 muzzleloader hunters, took to the woods last season and harvested a record number of deer and bear; small game hunters were treated to excellent squirrel, rabbit and dove hunting.

I'm constantly reminded by some of our hard working wildlife biologists that the "good old days" are now. Opportunities for Virginians who cherish and respect the rich hunting traditions that we have in the Old Dominion continue to grow. Recently we expanded the bear season, offered the ability to archery hunt statewide and created a special youth turkey hunting day prior to the opening of the spring turkey hunting season. Our special managed hunts and workshops continue to grow, giving young and not so young hunters alike the chance to participate in everything from waterfowl hunting at Princess Anne Wildlife Management Area to attending workshops that are designed to make you a better squirrel hunter. The Department is also excited to offer six public sighting-in ranges that are located around the state at our wildlife management areas, with plans for new ranges to open soon.

There are two changes this year that will make hunting in Virginia easier for everyone. The first big change is our new, redesigned 2004-2005 Hunting & Trapping in Virginia Regulations booklet. The new layout, with larger size and type, makes it much easier on the eye, and the addition of the Hunting and Trapping Annual offers additional information about wildlife management in Virginia and hunting opportunities around the state.

The second big change is the way that you will be able to check in bear, deer and turkey. In an effort to streamline this method you will no longer have to remove a tag from your license. Beginning this year, successful hunters must completely remove the designated notch area from the appropriate license or permit tag, which means no more lost tags. If you hunt deer or spring turkey you will also be able to speed things up by checking in your game by simply calling toll free 1-866-GOT GAME (468-4263). If you call you will be given a telephone confirmation number, which you will write down next to the notch on your license. But, if you prefer, you can still go to a local check station. Write in the check card number next to the notch on your license.

I encourage you to pick up a copy of the new 2004-2005 Hunting & Trapping in Virginia Regulations booklet and look it over. I think you will agree that together we are all helping to make Virginia a great place to hunt. If you really want to get a jump on this year's hunting season, I suggest that you mark your calendar and make plans to attend the Virginia Outdoor Sportsman Show, August 13 to 15, in Richmond. We will have plenty of staff on hand to assist you and to answer questions that will help to make your hunting experiences more enjoyable and memorable. And isn't that why we find that the time spent in the outdoors is so important, not only for ourselves, but for those who will grow up and help to protect and preserve our incredible natural resources.

Mission Statement

To manage Virginia's wildlife and inland fish to maintain optimum populations of all species to serve the needs of the Commonwealth; to provide opportunity for all to enjoy wildlife, inland fish, boating and related outdoor recreation; to promote safety for persons and property in connection with boating, hunting and fishing.

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About the cover: The Eastern hellbender (*Cryptobranchus alleganiensis alleganiensis*), is the largest of the salamander species in North America. They inhabit the clear, cool waters of mountain streams and rivers in southwestern Virginia, along the Tennessee and New river drainages. Hellbenders can grow as long as 30 inches and live upwards to 30 years in the wild. ©Dwight Dyke.

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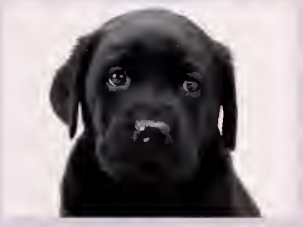

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The Eastern Hellbender:

©Jeff Humphries

When it comes to salamanders, the Eastern hellbender is in a class of its own.

by Michael J. Pinder

In the rivers of Virginia lives a giant. Known to locals as "waterdog," "waterdevil" or "grampus," it has long been the source of many wild, outlandish tales. Far from being a thing of fiction, the creature, which resembles a rock with legs, is a giant, aquatic salamander called a hellbender. While most salamanders are no longer than 6 inches, the hellbender can top out at

Mike Pinder

Giant of the Alleghenies

2 ½ feet. As impressive as this seems, it doesn't hold a candle to their closest relatives in Asia that can grow to an enormous 5 feet in length!

Two distinct subspecies of hellbenders are found in North America. The Eastern hellbender, *Cryptobranchus alleganiensis alleganiensis*, ranges from New York to northwestern Georgia to southern Illinois and east central Missouri. The species' name *alleganiensis* refers to its distribution in portions of the Allegheny Mountains. The other subspecies, the Ozark hellbender *(Cryptobranchus alleganiensis bishopi)* has a more restricted range, confined to south central Missouri and north central Arkansas. The Eastern hellbender is the only subspecies known in Virginia and is found in the New and Tennessee river drainages.

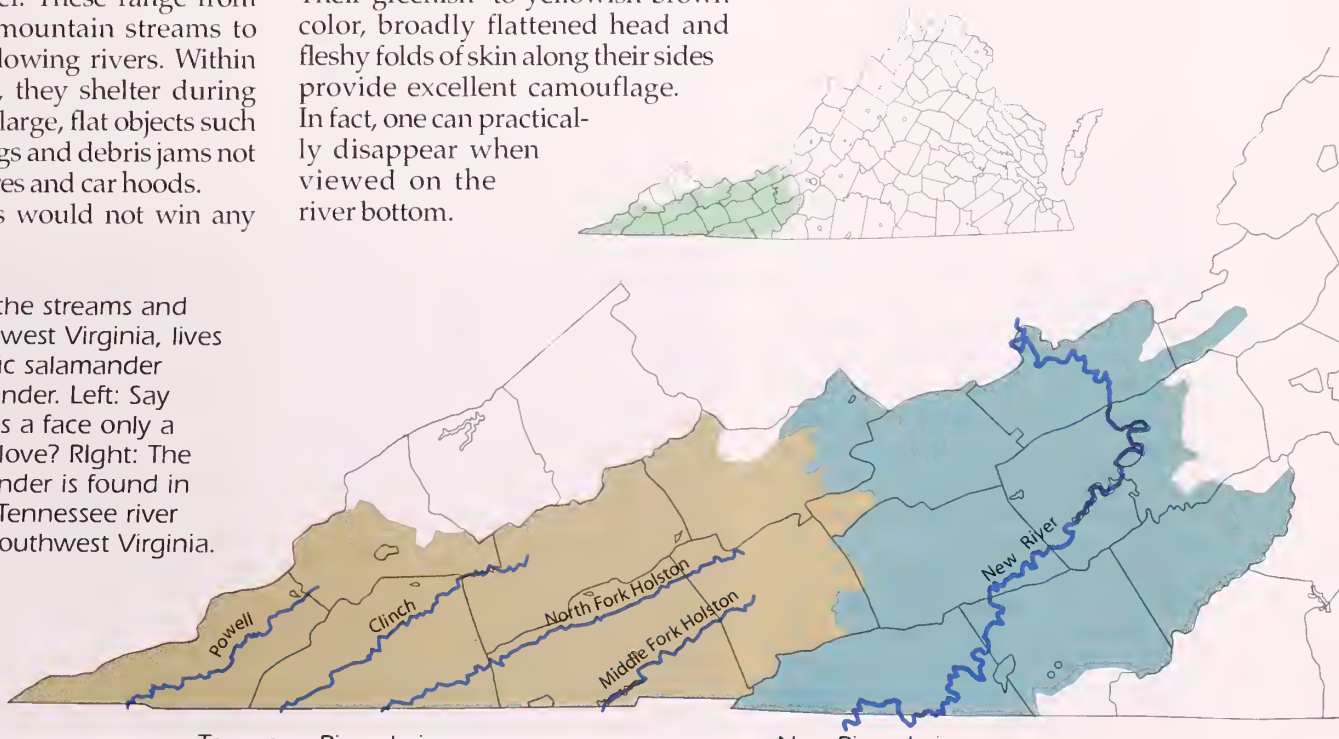
Hellbenders inhabit clear, well-oxygenated, cold to warm, flowing bodies of water. These range from small, steep, mountain streams to wide, gently flowing rivers. Within these systems, they shelter during the day under large, flat objects such as boulders, logs and debris jams not to forget old tires and car hoods.

Hellbenders would not win any beauty contests, unless, of course, the judges were others hellbenders. Even though their appearance seems bizarre, they are superbly adapted to life in rivers and streams. Their greenish- to yellowish-brown color, broadly flattened head and fleshy folds of skin along their sides provide excellent camouflage. In fact, one can practically disappear when viewed on the river bottom.

©Jeff Humphries

Above: Hellbenders are a unique part of our natural heritage and their presence is an indicator of healthy streams and rivers.

Upper left: In the streams and rivers of Southwest Virginia, lives a giant, aquatic salamander called a hellbender. Left: Say "cheese"! Is this a face only a mother could love? Right: The Eastern hellbender is found in the New and Tennessee river drainages in Southwest Virginia.



Tennessee River drainage

New River drainage

©Jeff Humphries

Hellbenders move about in their natural habitat by slowly crawling using four short legs. Each foot is equipped with a sandpaper-like pad that provides traction on slick stream rocks. To make a quick getaway, the salamander is equipped with a large, laterally flattened tail. One stroke of it can send the hellbender shooting through the water like a torpedo.

Anyone who has tried to hold a hellbender can testify to how difficult a proposition this is. They are incredibly strong, pliable and as slippery as the proverbial greased pig. Their slickness comes from a thick, slimy coating excreted by the skin. The coating acts as a protective barrier against rough and sharp surfaces and as a deterrent because it's noxious to many potential predators. Once shed, the skin and coating serves one last function: as a meal for the giant salamander.

The eyes of a hellbender are small and so widely spaced that they cannot simultaneously view the same object. Their eyesight has been described as no better than crude light receptors to keen enough to capture moving prey. Apart from the eyes, the entire body of the salamander is sensitive to light. The tail is especially receptive, which could alert the hellbender during the day that it needs to be tucked under cover to avoid being noticed.

The genus name for hellbender, *Cryptobranchus,* means "hidden gills" which was incorrectly described by early naturalists who thought they had internal gills, similar to those of a fish, under large slits behind each side of the head. Although they retain the presence of gill slits, nostrils and even lungs, hellbenders breathe primarily through their skin. Folds along the sides increase the body's surface area, which in turn promotes gas exchange. While some research suggests the lungs may serve as buoyancy, their full function is not clear.

Hellbenders are creatures of the night, and during their nocturnal forays dine primarily on crayfish. Other menu selections include small fish, snails, worms and insects. Adult gamefish are typically too large to eat, and there is little evidence of predation upon those

Above: The hellbender comes in a range of colors and patterns that allows it to blend in perfectly with the stream bottom. The fold of skin along its sides breaks up the salamander's form and aids in respiration. Above insert: A hellbender's foot has a sandpaper-like pad that helps it in crawling on slippery stream rocks. Below: The hellbender forages at night for its favorite food—crayfish which are crushed and eaten whole. Bottom right: The giant salamander moves effortlessly along the stream bottom.

Mike Pinder

©Dwight Dyke

Above: Anglers using bait, such as worms and crayfish, may accidentally catch a hellbender. Although this is quite a surprise to the angler, the hellbender is no threat and should be released unharmed.

species. Sight, smell and feel are used by the salamander to find its prey that is eaten whole and crushed by powerful jaws and small, evenly-sized teeth.

On the other end of the food chain, hellbenders are preyed upon by a wide variety of animals. Large fish, water snakes, snapping turtles, wading birds and even larger hellbenders prey on the young. A fully-grown adult has few natural enemies. By far, humans pose the greatest threat to their survival.

Anglers using live bait may accidentally catch a hellbender. Upon reeling in the amphibian, the shocked angler will either cut their line, or sometimes, kill the offender. A reason people kill them is a common misbelief that they're poisonous. These salamanders are nonpoisonous and are no threat to people. Anyone who catches one should cut the line as close to the animal's mouth as possible, or try to remove the hook with a pair of grasping forceps, much like those used by trout anglers. Once released, it will quickly seek shelter, hopefully, no worse for the experience.

Mike Pinder

Hellbenders are very long-lived compared to other animals. They are known to live to 30 years in the wild and over 50 years in captivity. The age at which sexual maturity is reached varies. Males tend to mature at 5 to 6 years and females 6 to 8 years. Because of a long lifespan and low survival of young, mortality to the older, reproducing individuals dramatically impacts their populations.

Hellbenders breed from late summer to mid fall, depending on where they live. Northern populations breed early in the mating season, while southern populations mate later. In Virginia, breeding has been observed from late summer to early fall. During this time, the male, which can be identified by the swelling around his vent, excavates a shallow nest under flat rocks, de-

Mike Pinder

bris and in crevices. Once the nest is constructed, he actively guides pregnant females onto it. The male then simultaneously fertilizes the eggs as she lays them. The spherical eggs, numbering from 150 to 450, are pale to light yellow, ¼ inch in diameter, and enclosed by two gelatinous capsules. Once in contact with water, the eggs and coverings quickly triple in size. A thin strand of jelly about 1 to 2 inches in length attaches the eggs to one another, making it resemble a string of beads. These eventually intertwine to become a tangled mass in the nest.

The female departs soon after egg-laying, leaving the male to guard the nest against predation by other hellbenders. Both males and females are known to eat their own eggs and those of others. Research has found that the male also keeps the eggs oxygenated by moving his skin folds. Incubation lasts between 68 and 84 days, depending on environmental conditions and population characteristics. Hatchlings are 1½ inches in length at birth, and except for external gills, appear like miniature adults. The gills are lost by 2 years of age or when the young grows to 4 inches. Very little information is available about habitat use by the young, but it is believed that they inhabit the small spaces between stream pebble and gravel.

I often hear from those that mention they can no longer find hellbenders in streams where they previously had seen them. In almost the same breath, the person also indicates that fishing in these streams has also declined. Hellbenders serve as a barometer of stream health, and the presence of young and adults is synonymous with good water quality. They are top predators, so streams with these amphibians must also have strong crayfish and fish populations. As we investigate their complex role in the stream environment, we are learning that they, like us, are linked to the health of these systems.

Mike Pinder

Top: Infertile eggs found from an abandoned hellbender nest. When on the nest a thin strand of jelly connects the eggs to one another. Above: Larval hellbenders appear like miniature adults with the exception of gills, which are lost by age two.

Water pollution and impoundments are major factors in the decline of hellbenders. Dams eliminate free flowing rivers and produce low oxygen conditions on the river bottom. Untreated sewage, sedimentation and chemical runoff from lawns, fields and parking lots all contribute to a reduction in their populations. Because respiration is through the skin, any toxic substance entering the river can rapidly have significant adverse health effects. Removal of streamside vegetation and soil disturbance by cattle or machinery increases erosion and can cause sedimentation. Sedimentation affects hellbender survival by suffocating eggs, filling in hiding places for their young, and killing aquatic invertebrates, such as the crayfish they feed on.

There is mounting evidence that hellbender numbers have been declining range wide as well as in Virginia. The Virginia Department of Game and Inland Fisheries currently lists the Eastern hellbender as a state species of concern. The U.S. Fish and Wildlife Service had considered it a candidate for listing under the Federal Endangered Species Act.

Since before the dinosaurs, hellbenders and their kin have thrived in the turbulent river environment. In recent years, however, their continued existence has come into question. Although it's difficult for many to appreciate such a strange creature, they nevertheless represent a unique and important part of our natural heritage. Only with a concerted conservation effort and a good deal of compassion will we guarantee that our rivers remain home to this fascinating giant. □

©Dwight Dyke

Mike Pinder is a regional wildlife biologist with the Virginia Department of Game and Inland Fisheries' Wildlife Diversity Division.

Wings in the Dark

by Carol A. Heiser
illustrations by Spike Knuth

For centuries bats have been misunderstood, unappreciated and often feared by many cultures around the world. Even now in our enlightened age of the Internet and technology, there are those who still hold on to naive beliefs that bats are flying rodents which will swoop down and attempt to get in your hair. Misconceptions like these are unfortunate, when one considers that many species of these deft-flying creatures of the night can consume thousands of insects in one evening. Bats play a vital role in the food web of life, controlling populations of night-flying insects, such as mosquitos, as well as crop pests that can interfere with agricultural production.

Bats are the hidden, night-time counterparts of insect-eating birds like swallows and others we can easily observe. But unlike birds, which rely on their eyesight to see insects, bats use a form of sonar known as *echolocation* to find and capture their prey. They open their mouths and virtually scream short bursts of sound waves in the ultrasonic frequency that we can't hear (some bat species fly with mouths closed and emit cries through the nose). The sound waves bounce off of objects and create an echo that the bat's highly modified ears can detect and use to locate flying food such as moths. Moths have their own adaptations for survival, too: they may dive or adopt an erratic flight pattern, and some species will emit ultrasonic sounds as a warning cry which "tells" a bat that the moth is unpalatable.

A colony of young little brown bats huddle together to maintain warmth, which helps them to grow quickly. In as little as three to six weeks the young are weaned and are able to fly on their own in search of food.

Little Brown Bat

One of the most commonly occurring and abundant native species of insectivorous bats in Virginia is the little brown bat *(Myotis lucifugus)*. This tiny bat—only 3 ⅛ to 3 ⅞ inches long and weighing a scant ⅛ to ⅜ ounces—is responsible for consuming thousands of insects in one evening, and as many as 600 mosquitoes in an hour! Other favorite prey items are moths, beetles and other night-flying insects. Emerging from its roost during late dusk, the bat searches for food or *forages* over bodies of water where insects swarm, such as ponds, streams and rivers. Another favorite hunting site for insects is over openings in forested areas.

Many people associate bats with caves in their mind's eye. However, caves are only temporary homes during the winter months for the little brown bat. During late April and into May, females congregate by the thousands to form summer nursery colonies or maternity roosts, often in abandoned old buildings or in the attics of houses. They prefer warm, dark locations. Males, on the other hand, are solitary during this time of year, and they tend to roost alone along rock ledges, under the loose bark of trees, or beneath the shingles or siding of buildings.

The temperature within a nursery colony is quite high—between 80 to 100 F—which aids the rapid growth of the young. It is believed that males have a longer life span and a higher survival rate than females because the males do not live in the hot conditions of the nursery colonies. The higher nursery temperatures mean that females have a higher annual rate of metabolism. Over the course of their lifetime, this means that females use more energy to survive.

After the females bear their young, which usually occurs between May and July with the birth of only one baby, it takes a mere three to six weeks before the young are weaned and able to fly. At this point the maternity colonies disperse, and by mid to late summer the bats have begun their migration to look for winter roosts, sometimes flying hundreds of miles.

That's when caves come into the picture. Between October and November, the migrating bats are ready to hibernate in their winter roosts. One summer colony may disperse to several different winter roosts. The bats may use waterways, escarpments, and even highways to

help them orient themselves as they migrate. The little brown bat hibernates primarily in caves, mine shafts and in highway tunnels. Both males and females hibernate together, forming winter colonies of a few to several thousand. A winter colony may also be made up of bats from several different summer colonies.

Within the hibernating colony, called a *hibernacula*, the bats form loose clusters to keep warm and conserve energy, so it is not unusual for droplets of moisture to condense on their fur. Contrary to popular opinion, bats do not sleep continuously throughout the winter. Instead, hibernation consists of alternating periods of arousal (wakefulness) and torpor (inactivity), generally at two week intervals. Mating occurs primarily during the fall but also occurs during these periods of wakefulness from hibernation. However, actual fertilization is delayed until spring, after the bats have left the hibernacula.

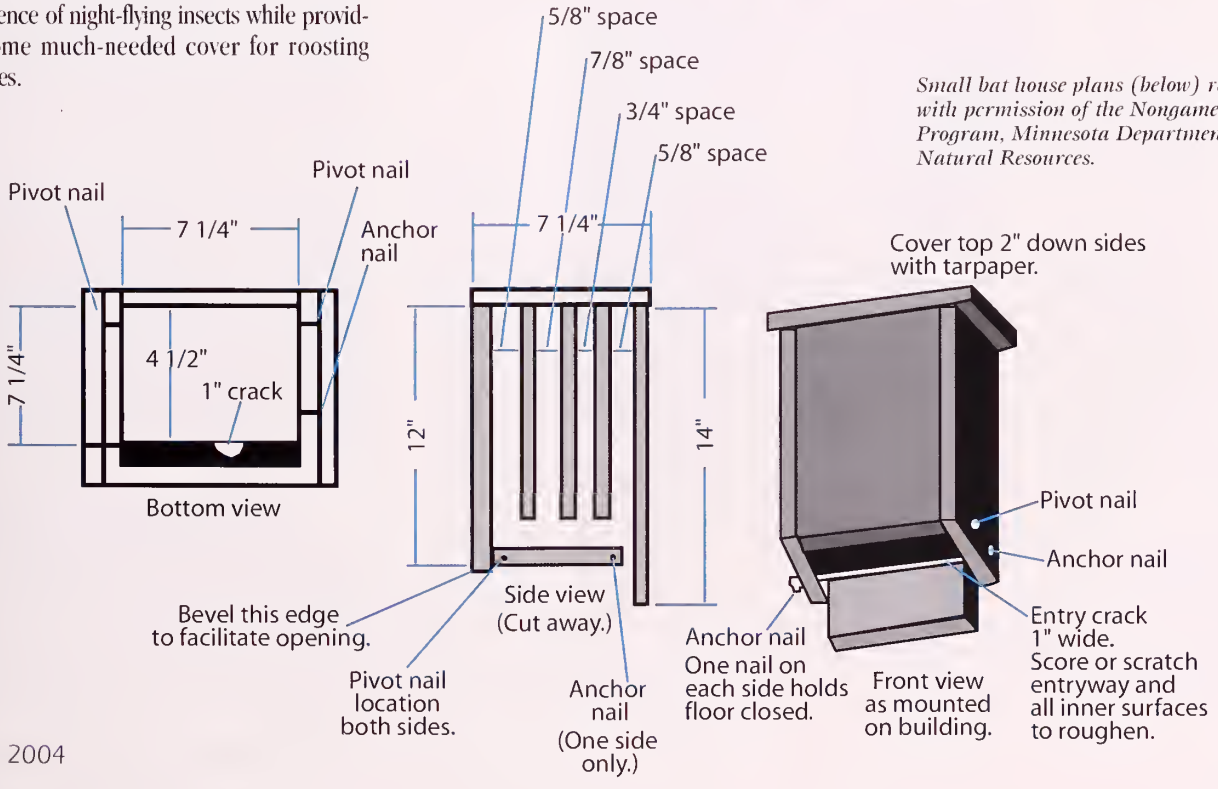
At the end of winter, between March and April, the little brown bat begins its journey all over again, leaving its winter cave home and migrating to its summer roosts.

Bat Boxes CAN Work

There are plenty of us who would enjoy sitting in the backyard on a nice summer night without being devoured by mosquitoes or other insects. Those artificial "bug zapper" devices certainly kill plenty of insects, but have you ever considered letting bats do the work for you in a more natural way instead? Placing a bat house in your yard could be one way to decrease the prevalence of night-flying insects while providing some much-needed cover for roosting colonies.

Right: Bat boxes are an excellent way to reduce night-flying insects around your yard or farm. Location, location, location is the key if bats are going to use a bat box. Keeping the boxes free from predators and in strong sunlight is a good start to attracting bats.

Below: Bat boxes are not very difficult to build and require little materials or time to assemble. Many of the major hardware and birding stores also sell kits for building bat boxes.



Small bat house plans (below) reproduced with permission of the Nongame Wildlife Program, Minnesota Department of Natural Resources.

By far the most likely species to use a bat box in Virginia would be the little brown bat and the big brown bat. There are several types of bat boxes. Some are huge, elaborate structures made from several sheets of plywood designed to be mounted on the side of a commercial building. Others are small, do-it-yourself kits that can be hammered together at home. What they all should have in common, though, are some basic design characteristics. Unlike a bird house which has a hole in the front, a bat house uses no holes and is made instead without a bottom. The bottom of a bat box is completely open because it is a bat's habit to fly up and under protective cover, not into a hole. Within a well-constructed bat house are roughened partitions or dividers on which multiple bats can hang close together. A single-partitioned bat box will hold about 50 bats, while a multiple-chamber design can house over 200.

The best place to hang a bat box is on a pole that is protected by a predator guard, located between 15 to 20 feet above the ground (the higher the better), and 20 to 25 feet away from tree branches or wires. A building is often recommended as the next best choice, especially for hanging single-chambered bat boxes. Some folks worry that attracting bats to their home will invite the creatures to crawl into small cracks or crevices around window frames, chimneys and eaves. It's been written that those little spaces wouldn't cause a problem, because supposedly bats would have already been using those spaces before you put up a box. But it's probably not a bad idea to do some maintenance around the building first anyway, by caulking or screening small openings. This is also a wise practice if you want to keep out other wildlife like squirrels, raccoons or opossums.

Whether or not your box will be used by bats depends on several factors. The single most important reason for the success of a bat house is adequate heat within the box and a sufficient amount of exposure to sunlight during the day. As mentioned above, bats require high heat to raise their young. The box should, therefore, be installed in a place that will receive at least six to 10 hours (or more) of sunlight each day, and it

If you live around water you will find bat boxes are a natural way of helping to control pesky mosquitoes.

When flying through the air in search of food, bats use sound waves, or echolocation, which their highly modified ears can pick up. This allows them to find and capture their prey even on the darkest of nights.

should be painted a dark (black) or medium (brown to light brown) color depending on how much sun it will get. Full sunlight is usually successful in Virginia's climate.

The other dynamic for bat house success is to consider whether or not pesticides have been used in adjacent areas, which would decrease the amount of available insects and, therefore, decrease the concentration of bats that might otherwise use your box.

Sometimes an area simply does not have an adequate food supply to support a bat colony because of poor habitat quality or a lack of water nearby. Bats prefer habitats with diverse cover types, such as a mix of agricultural fields and wooded areas. Bats also tend to be more abundant near aquatic habitats, because the insect population of those areas tend to be greater: nursery colonies are usually found within ¼ mile of a body of water such as a stream or a pond. However, if your neighbors already have bats in their boxes, or if there is a bat colony in an abandoned building somewhere nearby in your neighborhood, your box will be more likely to attract bats, too.

Other possible problems with bat boxes include wasp nests (use a minimum ¾-inch roost space between chambers to discourage wasps); location near bright lights at night (do not shine spotlights on the box); or inadequate box dimensions (partitions should be at least ¾ to one inch apart, 20 inches tall and 14 inches wide, and the total height of the box should be at least two feet).

Bats and Bridges

When natural structures, buildings or bat houses are unavailable, bats may be found roosting under bridges. The most famous bridge occupants are the Mexican free-tailed bats in Austin, Texas, which number about 1.5 million each breeding season. However, that species does not occur here in Virginia, and our bats seem to be more sparsely distributed. To get a better handle on how and where bats actually use bridges in our part of the country, biologists at the Virginia Department of Game and Inland Fisheries have been conducting an ongoing study since 1998. Although the study will not be completed until the end of this summer and the data are not yet conclusive, the preliminary results have been very interesting. The study may shed light on how wildlife use bridges and how future bridge design and construction could be adapted to benefit roosting bat colonies. In addition to bats, birds like phoebes, swallows and rock doves (pigeons) also use bridges for cover or nesting, as do wood rats and sometimes foxes.

The researchers are evaluating various landscape variables, such as the geography of the area around selected bridges and the presence or absence of water near them. It is unknown if the types of material used for building a bridge will make a difference in attracting bats. Therefore, the biologists are also comparing construction features such as spans made from metal, concrete or wood, and other parameters like span width and bridge height. In order to determine which species specifically use which bridges, they are using bat detectors to record bat calls and thereby identify the bats being observed.

So far, it appears that bats prefer to use the cracks found between bridge spans, called expansion joints, where the joints are available and not clogged up by debris. A Texas study showed that bats use expansion joints as day roosts to rest and rear their young, while at

night they usually roost in the open spaces between the beams as they fly back and forth to feed.

True or False?

Common Misconceptions (answers found to the right)

1. Bats are the number one cause of rabies in Virginia.
2. Bats deliberately fly around people's heads to harass them.
3. Bats are flying mice.
4. Bats are not blind.

Did You Know...

In the tropics, an abundant variety of wild plants depend on bats to pollinate their flowers. Many of the products we take for granted at the grocery store depend on bats to reproduce: bananas, avocados, dates, figs, peaches, cloves, cashews and carob. Although these products are now commercially cultivated, ancestral stocks still rely on bat pollination to ensure their survival in the wild. Some bat species are key to the seed dispersal and propagation of entire plant communities, because the animals spread seeds in their droppings after eating an assortment of fruits.

Learning More

The best source of accurate bat information in North America is Bat Conservation International, at www.batcon.org . Their Web site contains bat box plans and tips for box success, answers to frequently asked questions, the latest information about bat research, and plenty of intriguing articles to occupy a whole afternoon of reading. From this site you can also access some excellent books, such as *The Bat House Builder's Handbook* (contains box plans); *The Educator's Activity Book About Bats* (18 activities for teachers of grades K-5, a few of which are downloadable from the web); *America's Neighborhood Bats* (provides life history background on many bat species); and several great children's books [1-800-538-BATS (2287)].

"Bats of the Eastern United States"—this full-color poster is available from the Nongame Program of the Virginia Department of Game and Inland Fisheries, with your donation of not less than $10. To order, make check payable to *Treasurer of Virginia*, and send to Mary Beth Murr, Wildlife Diversity Division, VDGIF, P.O. Box 11104, Richmond, VA 23230-1104. □

Carol A. Heiser is a Wildlife Habitat Education Coordinator with the Virginia Department of Game and Inland Fisheries.

Answers to True or False?

1. The majority of human cases of rabies are associated with bats. True. From 1990 to the present, there have been a total of 38 cases of rabies in the United States, 28 of which were attributed to bat exposure. In Virginia there have been only 3 human cases of rabies since 1953, and only one of these was a confirmed bat case. It is extremely uncommon for bats to have rabies: less than half of one percent ever contract the disease. You can not get rabies from seeing a bat in an attic or by coming in contact with bat guano (droppings). Obviously if you see a hapless bat floundering around on the ground—or any other wild animal, for that matter—you should avoid coming in contact with it. According to the Centers for Disease Control brochure *Bats and Rabies*, "People usually know when they have been bitten by a bat. However, because bats have small teeth which may leave marks that are not easily seen, there are situations in which you should seek medical advice even in the absence of an obvious bite wound. For example, if you awaken and find a bat in your room, see a bat in the room of an unattended child, or see a bat near a mentally impaired or intoxicated person, seek medical advice and have the bat tested." Although a bat does not have to be alive to be tested for rabies, be sure not to destroy the brain if you capture and kill the animal. Call your county Animal Control office or the local Health Department for assistance.
2. False: Remember, bats are looking for insects. If your coiffure is sweetly scented with fragrant shampoo or hairspray, there's a greater than average chance that a bunch of gnats will be flying around your head on a hot summer night—and that would be the only reason bats would ever come near you! You might feel a quick "breeze" when they fly by, but that's rare.)
3. False: Bats are classified in the order *Chiroptera*, which contains several families unrelated to mice; bats are not rodents.
4. True: While bats rely on a highly sophisticated sonar system to capture their prey, they also have functional use of their eyes.

Virginia Naturally

VIRGINIA WILDLIFE
OUTDOOR CATALOG

2004 Limited Edition
Virginia Wildlife Collector's Knife

This year's knife has been custom made for us by Buck Knives. Every facet of this knife indicates that it will be a treasured collectable, from its distinctive handle with gold lettering and brass bolsters to the knife blade engraved with the Virginia Department of Game and Inland Fisheries logo. Each knife is individually serial numbered and comes in a decorative, custom wood box. Limited quantities of 400.

Item # VW-403 $85.00 each

NEW for 2004

Limited Edition Collectors Plates

Our first in a series of *Virginia Wildlife* limited edition collectors plates. This collectable is titled "Winter Comfort" and is taken from an original artwork by Bob Henley. Each plate is individually serial numbered and has the year of issue identified on the back. Price $22.95 Item # VW-500

Limited Edition Steins

Our first in a series of *Virginia Wildlife* limited edition steins. This companion piece to our Collectors Plate, shown above, is also individually serial numbered and has the year of issue identified on the reverse side.
Price $16.95 Item # VW-501

Custom Walnut Plaque

Display your trophy fish or hunting certificates, as well as other awards, with this custom plaque. Each plaque contains two medallions commissioned by VDGIF. Plaques are available in walnut and oak. — $19.95
Walnut Item # VW-217 Oak Item # VW-218

Buckles

Our bass and duck belt buckle collection is crafted of solid pewter with *Virginia Wildlife* engraved at the bottom. Each buckle comes in a custom gift box with the distinctive VDGIF logo displayed.
$9.95 each
Item #VW-502 Bass VW-503 Duck

NEW for 2004

Our *Virginia Wildlife* collection of Throws and Pillows

Yellow Lab Pups Tapestry Throw

Created from a photograph by Virginia photographer Dwight Dyke, these five Lab pups lay about in the warmth of their basket alongside tools of their trade. This tapestry throw created, exclusively for VDGIF, is triple jacquard woven of 100% cotton. Machine washable and measures approximately 52" x 69" — $39.95 Item # VW-515

Matching Yellow Labs Tapestry Pillow

available at — $19.95 Item # VW-516

Winter Songbirds Throw

52" x 69" triple jacquard woven of 100% cotton, Machine Washable — $39.95 Item # VW-507

Winter Songbirds Matching Pillow

18" x 18" — $19.95 Item # VW-508

Fall Buck Throw

52" x 69" triple jacquard woven of 100% cotton, Machine Washable — $39.95 Item # VW-511

Fall Buck Matching Pillow

18" x 18" — $19.95 Item # VW-512

Down From the North Throw

52" x 69" triple jacquard woven of 100% cotton, Machine Washable — $39.95 Item # VW-509

Down From the North Matching Pillow

18" x 18' — $19.95 Item # VW-510

NEW for 2004

Our *Virginia Wildlife* collection of Pulsar Watches by Seiko

Your choice $59.00 each or 2 for $100.00

From the Ladies Pulsar collection. This attractive watch has a gold tone bracelet with gold tone hands and markers on a champagne dial. Water resistant. Item # W-302

From the Pulsar Nightfall line. TiCN Plating, gold tone crown, hands and markers and black dial. Water resistant. Item # VW-301

Man's Wrist Watch, stainless steel bracelet, luminous hands and markers and blue sunburst dial. One way rotating elapsed timing bezel. Water resistant. Item # VW-300

Book Clock

This decorative book style clock is crafted of solid cherry wood beautifully engraved with a vivid wildlife scene on the book side of the clock. The clock face is of old world décor, a collectors delight. Clock is 5 1/2" x 8 1/2" when opened. — $29.95 Item # VW-303

NEW for the Art Lover or Collector

Framed 16″ x 20″ prints of our *"Winter in Virginia"* original paintings.

Each print is custom framed and matted. These attractive prints will brighten any room and are available for a limited time at — $35.95 each. Item # VW-211 please indicate:

Cardinal
Turkey
Deer
Grouse

Cardinal

Turkey

Deer

Grouse

Virginia Wildlife Greeting Cards

Renowned wildlife artist Spike Knuth has captured the unique lives of Virginia's wildlife. A cardinal, grouse, wild turkey and white-tailed deer are featured in this set of greeting cards. Each box contains 12 cards and envelopes; three cards per image for only — $9.95 Item # VW-212

Virginia Wildlife Caps

Hats off to the new *Virginia Wildlife* caps that feature three unique designs. Each cap is 100% cotton, size adjustable and embroidered with the *Virginia Wildlife* magazine logo. — $11.95

High profile – deer – Item # VW-118
Low profile – deer – Item # VW-117
High profile – bass – Item # VW-116
Low profile – bass – Item # VW-115

High profile – Camo With Black Letters – Item # VW-113
High profile – Blaze Orange – Item # VW-114
High profile – Camo With Tan Letters – Item # VW-112
High profile – Virginia Wildlife – Item # VW-120
Low profile – Virginia Wildlife – Item # VW-119

NEW *Virginia Wildlife* Hats

Our new *Virginia Wildlife* hats are available in 100% cotton or in denim and are size adjustable. These attractive hats have been embroidered with our *Virginia Wildlife* magazine logo and feature either an eagle or trout for the wildlife and fishing enthusiasts. Hats are available in high profile. Check out our new low profile denim hats. These hats look great with our new denim shirts. — $11.95 each

Navy Hat with Trout Item # VW-121
Black Hat with Eagle Item # VW-122
Denim Hat with Eagle Item # VW-123
Denim Hat with Trout Item # VW-124

NEW Denim Shirts

100% cotton, pre-washed, long sleeve denim shirts with embroidered logo, available in sizes Med, Large, X Large and XX Large. — $19.95 each

Denim Shirt with Cardinal Item # VW-109
Denim Shirt with Eagle Item # VW-110
Denim Shirt with Trout Item # VW-111

NEW to our T-Shirt Collection

T-shirt with Eagle, available in Black, Navy and Teal
$12.95 each Item # VW-100

Virginia Wildlife T-Shirts

Each shirt is 100% cotton and embroidered with the Virginia Wildlife logo, and a largemouth bass or white-tailed deer. Please specify size, M, L, XL, XXL and color, Grey, Navy, Tan, Teal, or Black when ordering. — $12.95
Largemouth Bass – Item # VW-103
White-tailed Deer – Item # VW-104

NEW *Virginia Wildlife* Sweat Shirts

These attractive shirts are a 50/50 cotton polyester blend, with an embroidered logo, and are available in sizes, Med, Large, X Large and XX Large. — $17.95

Sweat shirt with Eagle comes in colors Black, Navy and Khaki Item # VW-105
Sweat shirt with Trout comes in colors Grey, Navy and Khaki Item # VW-106
Sweat shirt with Deer comes in colors Black, Grey and Khaki Item # VW-107
Sweat shirt with Cardinal comes in colors Black, Navy and Rose Item # VW-108

VW-100

VW-103

VW-104

VW-106

VW-107

VW-108

VW-105

Collectors Patches

The first set in a series to be issued each year. Our 2003 edition has been custom designed exclusively for VDGIF. One patch displays a deer in a woodland setting, the other a black bear mother and cub. This first edition is sure to become a valued collectable.

$9.95 set of two Item # VW-505

Commemorative Collectors Coin

Each coin is engraved with the original artwork of a black bear and cub, provided by wildlife artist Spike Knuth, and is packaged in an attractive gift box. *Limited quantity available.* — $9.95 Item # VW-504

Pocket Knife

This attractive and functional 3-inch folding knife, manufactured by Bear Cutlery, comes with oak handles with *Virginia Wildlife* etched on the handle. Each knife is gift boxed.

$24.95 Item # VW-400

Item #	Name of Item	Qty.	Size	Color	Price	Total Price

Make checks payable to *Treasure of Virginia* and mail to: *Virginia Wildlife* Catalog
P.O. Box 11104, Richmond, VA 23230-1104
Credit card orders can call (804) 367-2569

Subtotal	
Shipping and Handling	**6.95**
Total	

Payment Method

❑ check or money order ❑ VISA ❑ MasterCard

Account Number Expiration

Signature

Please Print Name

Daytime Phone Number

Shipping Information

Name

Address

City State ZIP

Southside Smallmouth

©Dwight Dyke

Prolific in scenery and action, the South Fork of the Shenandoah River is among Virginia's finest for high-volume bronzebacks.

by Chad Adams

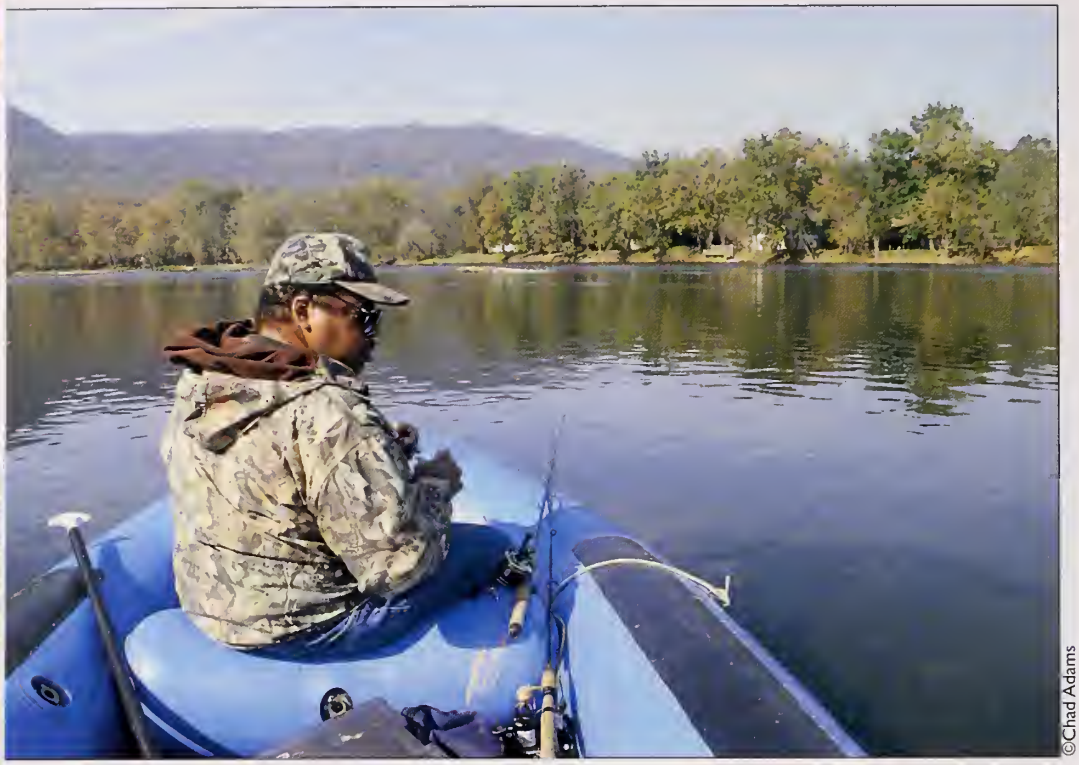
While the New or the James rivers may produce more citation smallmouth, neither capture the tranquil beauty, nor the volume of fish, as does the Old Dominion's crown jewel, the beautiful Shenandoah Valley and her lazy bronzeback machine—the South Fork.

On a good day on the South Fork, experienced anglers can land more than 40 to 50 fish in an outing. Various pools and runs known to hold fish often play the backdrop to numerous wading anglers at once. The rhythmic dance of casting and stripping lines forms the soundless chorus, while float fishermen cruise by in canoe or raft, a symphony of paddles and spinning gear functioning in a tempo all its own.

The Good, the Bad and the Ugly

The good news for the Shenandoah is that it currently holds several strong year classes of smallmouth. According to the Virginia Depart-

©Dwight Dyke



©Chad Adams

ment of Game and Inland Fisheries, 1997 and 1998 classes were very strong, and combined with the remaining fish from 1993s strong class, the potential for higher volumes of larger fish exists. The recent classes should be approaching anywhere from 12 to 17 inches in length, while the 1993 bronzebacks could possibly begin topping the magical 20-inch mark.

The South Fork also has higher smallmouth densities than any other river in Virginia. Department biologists routinely sample fish populations, and the Shenandoah's Catch Per Effort (CPE) rate topped the state.

"The Shenandoah is generally the highest in the state, said Steve Reeser, a biologist with the Department. "It's mean, or average, is usually around 100 or higher per hour."

But the bad news for the Shenandoah is that it typically doesn't produce those large bronzebacks, as compared to some other Virginia rivers. Whether it's from the Shenandoah's high content of PCBs and mercury, or possibly some type of genetic feature within the local fish population, biologists are still uncertain.

So with several years of below average year classes, combined with last year's substantially high water levels during the important spring-spawn season, the downside for the Shenandoah could be a considerable drop in numbers.

"Last year's class was obliterated by the high water," said Reeser. "When you have high water in June, you're going to have a poor year class."

What biologists don't know yet is what the effects of several poor year classes will be specifically on the South Fork. Obviously, there will be fewer juvenile fish, which normally make up a high percentage of the Shenandoah's prolific numbers. However, the question begs, with fewer juveniles in the fishery, will the South Fork begin to produce the monster, citation lunkers common in other Old Dominion rivers? Only time will tell. It's probably more likely that future strong classes will swing the numbers back into balance.

The Float

From the confluence of the North and the South rivers, the South Fork of the Shenandoah River snakes its way for 97 miles before forming the main stem. A short piece of waterway by comparison, as a fishery, or as a simple work of nature's beauty, the South Fork compares to none. With such picturesque, fish-choked waters to choose from, where does one begin? Along its length, there are 20 landings in which float fishermen can launch their crafts. A complete listing is available on the Department's Web site, under the South Fork page. While there are a few instances where a small johnboat can be used, most launches can only accommodate a canoe or raft. Virtually any one of those spots is deep in the heart of smallmouth country, as there are very few spots on this river that don't hold fish.

My favorite float is Bentonville to Karo Landing at Gooney Creek—a popular float for fishermen, paddlers and swimmers alike. Nine miles long, this float cuts through Shenandoah River State Park and features numerous islands, canopy-covered side channels, and several riffle runs. While the river left bank is lined with a campground and few houses, almost the entire river right remains undeveloped throughout the Shenandoah River State Park. First-timers should plan on having plenty of film or digital power on-hand.

Within this rustic beauty, there are several sections of this float that traditionally hold fish. Immediately following put-in and a river left turn, (throughout the following riffle runs and subsequent river right turn, known as "The Angle,") look for lots of structure on the banks. Overhang-

©Dwight Dyke

©Chad Adams

Anglers who fish the South Fork of the Shenandoah River know it can be a hot spot for smallmouth bass. When conditions are right it's not uncommon to catch 50 fish a day.

ing banks, stumps and ledges provide plenty of cover and hold fish throughout this section. Another good section lies about 6 miles into the float, after a long, sharp, river right turn known as "The Point," which gives way to a 2-mile, wide, slow-moving section of river down to McCoys Ford. Another traditionally good section lies just before take-out at Karo Landing and Gooney Creek. An excellent map depicting these sections of water is available at Shenandoah River Trips headquarters. However, if you don't have a map or your weekend stress relief has no place for orientating, fear not. This entire float is chock-full of smallmouth bass.

Look for breaks in the water; exposed rock or timber among swift moving water provide an excellent spot for a bronzeback waiting to ambush. Generally, any place that a fish will not have to work as hard to hold in the current, the very thing that brings dinner to the fish, is a good spot. Fallen logs, points and eddies should hold fish as well. I've caught several fish during this float on the top shelf of rapids and within the numerous riffle runs that dot this stretch of water.

The Arsenal

Although some dedicated smallmouth anglers will probably cringe, I use a considerable amount of "largemouth" lures on the South Fork. When water levels become high, and visibility becomes limited with the spring and early summer rains, I find vibration to be key. Spinnner baits utilizing Colorado blades often produce well in these situations, as do crankbaits and topwater buzzbaits. However, proven smallmouth lures such as a Mepps in-line spinner shouldn't be ignored either. At normal pool, with good visibility, I often turn to plastics. Texas-rigged worms, usually 4-inch, small jigs or crayfish can be effective. Madtoms are another local favorite. But when conditions are right, nothing seems to beat a fly rod, especially when effectively matching the numerous hatches that occur on the river. Clouser minnows, wooly buggers and various poppers will often match the bite.

Keeping hatching insects in mind, this year marks the coming of Brood X, the 17-year cicada. Beginning in late May, peaking in June, then dwindling in early July, the annoying cicada brings with it an opportunity. As long as you have a surface plug, plastic lure or fly in your tackle box that matches the cicada this season, you should be in for some spectacular outings. With the buffet these adult insects are expected to create, adult fish could get worked up into quite a frenzy early into the hatch.

There are numerous canoe liveries and some excellent fishing guides like Bill Heresniak, of Eastern Trophies Fly Fishing, who can help you learn more about the South Fork of the Shenandoah River.

Catch-and-Release

While catch-and- release is a practice in which all anglers should engage, it can become essential on the Shenandoah. Because of high levels of PCBs and mercury, the Virginia Department of Health has issued a fish consumption advisory for the South Fork. From Port Republic downstream to the Route 619 bridge, in the vicinity of Front Royal, no more than two eight-ounce meals per month should be consumed. Small children, nursing mothers or women who may become pregnant should not eat fish from these waters in any circumstance. Any fish caught below the Route 619 bridge should not be consumed by anyone. □

Chad Adams is assistant editor of NRA's Shooting Illustrated *magazine, an active member of the Outdoor Writers Association of America, and a freelance outdoor writer who calls Springfield, home.*

©Chad Adams

©Jim Wilson

"Garden Well - Eastern Bluebird"

"Garden Well – Eastern Bluebird"

This lovely, rural painting features the winsomeness of the male eastern bluebird perched atop a vintage garden water pump handle. A gentle backdrop of deep blue and white, late summer flowers complements the meadow edge scene. The painter says, "As an emblem of nature's moral conscience the bluebird is a living poem."

The artist, Jim Wilson, believes that this particular creation symbolizes "the pristine beauty of the American wilderness and the idealism of the American experience."

"Garden Well - Eastern Bluebird" canvas edition is strictly limited to 200 signed and numbered reproductions. This, 11 ½" X 19 ½" canvas image, is framed with a hand-wrapped Belgian linen liner and a rich 2" burled hardwood frame. The total framed size is 17" X 25". This framed premier release is available for $225 plus $15 shipping and handling. Allow three weeks delivery. VISA, MasterCard, American Express, and checks are accepted. Satisfaction guaranteed.

Twenty-five percent of the proceeds from every reproduction or original sold will go to the Virginia Department of Game and Inland Fisheries' Nongame Program. The framed original acrylic painting is available for $2500.

"I feel very blessed to be able to share this gift in a way which can benefit many generations to come." Wilson is refocusing on what more he can do with native Virginia's wildlife and habitats. Past covers and articles of *Virginia Wildlife* are graced with his intricate artwork. He is grateful to revisit his partnership with the agency.

For order information, Tuesday-Friday 10:00 a.m. to 5:00 p.m., contact The Wilson Gallery at Creative Interiors, Inc., 492 Wythe Creek Road, Poquoson, VA 23662, (757) 868-6851.

For more information, contact: VDGIF, 4010 West Broad St., P.O. Box 11104, Richmond, VA 23230-1104, (804) 367-0486. □

On The Edge

For local wildlife artist, Jim Wilson, painting is a natural way to teach people about our fragile planet and the animals that call it home.

by Emily M. Grey

©Emily Grey

Jim Wilson has traveled the world to capture on canvas some of its most unique and threatened wildlife species. Through his paintings Jim hopes to bring a better appreciation and knowledge of our natural world, and the importance of preserving and protecting it.

From his studio in Poquoson or in the wilderness, Jim Wilson works natural magic. After studying preliminary pencil sketches from his field journal, this wildlife artist creates stunningly realistic watercolor, acrylic and oil paintings of bobcats, macaws and other creatures.

In orchestral fashion, Wilson rotates amongst several pieces. He watches carefully as each sketch develops into a painting. This latter medium may also evolve on the easel as its maestro finely tunes the lighting, depth, tone and atmosphere. The finished product is matted and framed in the studio.

Nowadays, Wilson's paintings are mechanically reproduced on canvas or watercolor paper through the giglee process. This way of capturing the essence and richness of an original watercolor or oil painting is archival up to 200 years. It offers an affordable means for many more people to own fine art.

A Budding Artist

Wilson grew up and still lives in York County, Virginia. His parents taught him respect for nature and to enjoy simple things like camping and fishing. From exploring marshes and woods year round to summering in Appalachia, Wilson cherished uncovering the mysteries of Virginia's outdoors. Nature became his best friend, his passion and a sanctuary.

It was only natural that art and nature fell together for the young fellow. While climbing trees, he envisioned ideas for paintings. Soon, he began sketching and photographing on-site.

"Painting and drawing are like breathing to me," explains Wilson, who began sketching at five. "I could not understand as a child why others could not do this.

"Now, I am doing the same things I did as a kid," he says.

For 20 years Wilson worked as a commercial artist for NASA, his "meal ticket" and part of his family heritage. From South America's rainforests to Alaska's tundra, this artist-in-residence covered acid rain to pollution to ozone.

He credits Robert Bateman for changing his life. After studying with this world-renowned Canadian artist for one week, Wilson became more inspired to dedicate his remarkable talent to wildlife.

"Our thoughts about the environment and art are similar, so we clicked," Wilson explains.

In 1985, the Governor of Virginia recognized Jim Wilson as one of the state's foremost artists. Since then, his prominence has spanned the continent.

Now, this Virginia artist, naturalist and conservationist wants to give back to nature through his paintings.

"The old ways of life, diversity of cultures, as well as many species are quickly disappearing," Wilson says. "Today's kids will miss experiencing that."

"Wilderness areas counterbalance the hustle-bustle of cities," he

continues. "We need to go to places and get in tune with where we came from."

Teaching

For 10 years, Wilson has conducted fundamental nature and field drawing classes at the Virginia Living Museum, in Newport News and in his studio.

After 12 weeks of an interpretive more scientific drawing class, beginners advance to the art of composition. Live specimens help students appreciate the particularities of a subject. Their instructor challenges them to look at light, color, texture and other details.

"People begin looking at a small patch of the planet," Wilson explains. "Instead of skimming over a rock, they pick it up and ask how it got there."

Individuals learn to ask questions about an animal's anatomy and behavior. Soon, they make a cognitive shift and learn to see the world through a true artist's vision.

Wilson is proud of his many successful protégés. Some prior students attend art school. Adults become professional and sell their work.

"I like to see people develop skills, achieve their dreams and enjoy nature in a new realm," the teacher says.

©Emily Grey

For a decade Jim has been teaching wildlife art and painting. By sharing his knowledge Jim hopes to enlighten others so they will continue to bring awareness about the world's threatened species and their endless struggle for survival.

Wilson also conducts two-week field seminars in the wilds of Alaska. Students are given a rare opportunity to explore and study Denali National Park and the Kenai Fjords.

Summer Show

Wilson's "On The Edge – The Plight Of Endangered Species" exhibit is being featured at the Virginia Living Museum from June 19th through the summer. Five years in the making, this amazing 40-piece collection of endangered global species' paintings and drawings showcases jaguars, gorillas and wolves. It reflects the heart and voice of this devoted land steward and his commitment to save our world's dwindling species and their critical natural habitats.

"This exhibit is about the environ-

©Jim Wilson

ment on a global scale," said Wilson. "Its purpose is to bring awareness to the public. It is a celebration of the beauty of nature and enlightens people about what they can do to preserve it."

After this show, the exhibit will travel for many years across the United States. Money from every sale goes to Defenders of Wildlife, the Audubon Society and other hosting facilities. Wilson's art has also benefited the World Wildlife Fund, National Parks and Conservation Organization and other nature organizations.

In 2000, Virginia Ducks Unlimited received a license from the Department to begin publishing and marketing the Virginia Duck Stamp Program. Net proceeds from product sales are used to help fund projects to enhance Virginia's waterfowl populations.

In the spirit of this effort, Wilson painted and won top awards for "Over the Crest – Canvasbacks," and "Sunset Serenade" of tundra swan. These striking designs are the respective 2002 and 2003 Migratory Waterfowl Stamp Prints.

"Nature is full of subjects that I would like to paint," Wilson says. "As long as I have my eyes and hands, I can't see myself retiring."

"I think knowledge and education are the keys to preservation," he continues.

"There's no better place than planet Earth. We need to appreciate it and try to care for it for our children and grandchildren." □

Emily Grey is an attorney from Virginia's Eastern Shore. She spends a great deal of time traveling the world writing about and photographing nature's wonders.

For More Information

Learn more about Jim Wilson's art at: www.jimwilsonstudios.com

And, this summer, visit:

Virginia Living Museum
524 J. Clyde Morris Blvd.
Newport News, VA 23601
757-595-1900
www.valivingmuseum.org

©Jim Wilson

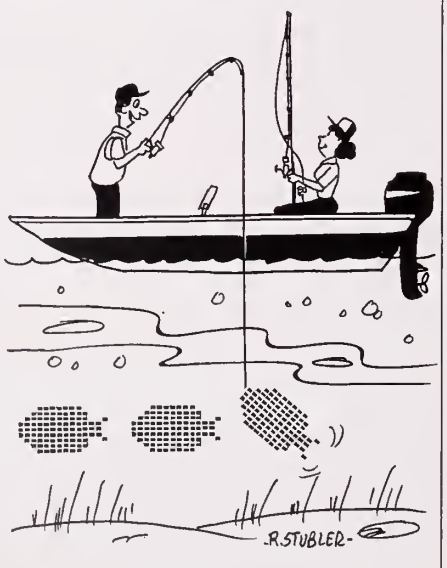
Journal

2004 Outdoor Calendar of Events

August 13–15: *Virginia Outdoor Sportsman Show,* 3000 Mechanicsville Tnpk, Richmond; www.sportsmanshow.com

August 20–22: *Mother/Daughter Outdoors Event,* Appomattox. Educational opportunity for women 9 and older to learn skills for outdoor pursuits. Call 804-367-0656 or visit our Web site at www.dgif.virginia.gov/events/index.html.

September 17–19: *Virginia Outdoor Weekend,* Westmoreland State Park. A program designed to give the entire family a chance to add to their outdoor experience. For more information call (804) 367-0656 or visit our Web site at www.dgif.virginia.gov/events/index.html. □



"I think I hooked one of those fish showing on the graph."

That's My Kind of Grandma!

by Jennifer Worrell

When Game Warden Sergeant Bob Mathers visited a local check station to see who was checking in game one hunting season, he couldn't help but notice a turkey killed, during the special archery season, by an 80-year-old woman.

"Now that's my kind of grandma!" he thought.

Interestingly enough, the woman's grandson had checked in the bird earlier that morning. Mathers decided to locate the young man and ask why his grandma didn't check in the turkey herself. The grandson said his grandma had to get back to Hampton to cook breakfast for his grandpa.

Instantly suspicious, Mathers asked Officer Kris Dougherty to pay grandma a visit. The elderly lady knew nothing about the turkey. In fact, she didn't even know that she had a hunting license. It turned out that grandpa and his grandson had bought a senior citizens' hunting license for granny and they had been checking in game in her name for a number of years.

While grandpa and grandson had to pay the consequences for their actions, grandma merely had to turn over "her" hunting license. To this day Mathers still wishes he could meet an 80-year-old granny who could take a turkey with a bow and arrow! □

VOWA 2003 Awards Announced

by Marika Byrd

The Virginia Outdoor Writers Association, Inc. (VOWA) presented their 2003 "Excellence in Craft" awards and the Youth Writing contest winners during their March 31, 2004, annual meeting.

Recognized for their "Excellence in Craft" (for members) in the following categories are:

Feature Article: First place to King Montgomery for "Stop Look, and Listen," in *Southern Anglers'.*

David Hart's "They Only Come Out at Night," in *Wildlife in North Carolina,* tied with Mark Fike's "Passing the Shot," published in the *Whitetail Times.*

Regular Column: Jim Crosby's "On the Water," in *Virginia Wildlife,* took first place.

"Scout Trip Exposes Outdoor Fun," *Staunton News-Leader,* won Nancy Sorrells a second place.

Third place went to Mark Fike for his entries from the *King George Journal.*

Photo Essay: A surprised Lee Walker (editor of *Virginia Wildlife*) won first place for "Devotion," in *Virginia Wildlife.*

King Montgomery took second place for "Warmwater Magic," published in *Southern Angler's Journal.*

Emily Grey's "Natural Selection,"

Richmond Times-Dispatch garnered a third place finish.

Photography: Internationally-renowned Lynda Richardson received a first and a third place for shots in

Smithsonian Magazine–Boy in boat with Baby Tarpon (inside photo) and Cuba Flamingoes (a cover), respectively.

Second place, again was King Montgomery for "Chincoteague Ponies," a *Virginia Wildlife* cover.

Open Category: Curtis Badger took first place with his book, *"Virginia's Wild Side."*

Peter Ring's cover art for "Factors Relating to Hunting and Fishing Among Youth" survey won second place.

Tied for third place were Sally Mills' *"Managing Marine Fisheries,"* a special publication for the Virginia Marine Resources Commission and Lillie Gilbert, Belinda Nash and Denise Norred-Williams were cited for their *Bayside History Trail Guide-Book* (for kayakers and canoeists).

Many of the above winners contribute to the *Virginia Wildlife* magazine.

The highlight of the meeting was the Youth Writing award presentations.

Bryson L. DeRonde, a freshman from Goode, Virginia, was declared the first place winner for his article about a monumental experience with his older, disabled sister who fulfilled a hiking dream and exceeded family expectations.

Second place went to Michelle Stern, Princess Anne High School, Virginia Beach, Virginia, for her "inner outdoor exploration" at the Westmoreland State Park.

Renee Perry, took third place for an essay about her "first experience" as a 4-H Camp head counselor at the Jamestown 4-H Camp in York County.

The audience rejoiced with Bryson and Renee as they read their winning essays. In addition to their winning, all three were provided with a number of prizes from the following VOWA supporters: Bass Pro Shops, Buck Knives, Bushnell, The Coleman Company, Dick's Sporting Goods, Lawrys (seasonings), Virginia Wildlife / VDGIF, VOWA, Walker Agency and Woods and Waters. All three recipients will be afforded an opportunity to attend a one-week Forestry Camp at Holiday Lake 4-H Center, Appomattox, Va.

The goal of the contest is to reward young people for excellence in communicating their personal experiences in the outdoors. The competition is open to all Virginia students in grades 9 through 12 and those who are home schooled. Entries are to be nonfiction only, with the theme, "What I Learned About Life From a Memorable Outdoor Experience."

Check the VOWA Web site at www.vowa.org in the late fall for updated contest rules, and submission deadline information.

Watch coming issues of *Virginia Wildlife* for publication of all three award-winning essays. And now here is the first place winning entry.

A Monumental Experience

by Bryson Lytle DeRonde

It stands tall against the evening sun, like a massive monument. The monument reminds us how small we are, and yet how great we might become. It tempts us to reach our limits by reaching its top. Once the top is reached the most important transformation takes place. Perspective.

Opening my front door every morning to step out to start my day, I am greeted by the monumental mountain peaks known as the Peaks of Otter. A soft mist usually covers the one called Sharp Top, so I can't clearly see the pointed peaks. When I was younger, the name and the image reminded me of some sort of creature from the dinosaur age. I wasn't sure it was the kind of mountain that people would sort of point in the general direction and say, "Yea, that's Sharp Top up there." I know this is what my sister thinks. She is 16, a year older than me, but she has Downs Syndrome. She is capable of doing most things, but as a family we have to sort of "tone things down" as my mother says. For myself, and my two other siblings, that can mean "boring." Mom doesn't like to leave her behind. Her balance isn't that good and her coordination is a little off which tires her out quickly. Instead of kayaking, we end up taking a pontoon boat, instead of mountain biking, we find the straightest, monotonous, flattest bike trails, (usually the Percivles Island run along the James River in Lynchburg). But, when she told us "I wan t clim a mounten," my mom gave us that look. The kind of look that meant "okay honey, we will," but to the rest of us we all knew it wasn't going to happen.

It was early fall and I was leaving out to catch the bus. Hunting season was on my mind, so I paused on the porch as I usually do just to listen, watch and feel the country air. I love this time of morning. The sun's fingers pull back the knighted quilt and the beginning of a new day are quietly apparent. I faced the northwest and "it," had the look as if to say "she can't climb me, come on I dare ya." I thought about this all day. Could she really climb Sharp Top? There is a trail, it can't be that hard. Once I got home. I asked my mom what she thought about Katie being able to get to the top.

"Getting her to the top is not what is important," she said. I on the other hand now wanted to get myself to the top. It was set and that next Sunday off we went to the bottom of Sharp Top. We were surprised how crowded it was. I wondered how many will make it or how many will turn back. I figured Katie and my mom would make it about a third of the way and end up coming back. Our plan was as follows; Katie and my mom would go as a team, and my little sister, Stephanie and little brother, Ben would go with me. I would backtrack periodically to check on Katie and mom, while Stephanie and Ben would stop to

rest and wait until I return. Ben occasionally has seizures, so this caused a dilemma for my mom. She didn't feel comfortable with Ben on the side of the mountain, and me not there. So it was decided we would just stay together as we walked to the top and I would not back track to check on them. Mom said more than likely she would not meet us at the top and for us to be careful and have fun.

We reached the top quite quickly. There were really only a few spots we could look out and see any sort of view or determine how far up we were. Fall was just starting, so the leaves were still too thick to see very far. The trail was really rough and the footing was terrible, rocks, boulders, huge roots and sometimes not even a path. It was more like a crawl space where you had to sort of pull yourself up. I knew Katie wouldn't be able to make it. I envisioned them sitting in the van listening to Brittany Spears, and mom reading. Was I ever wrong.

Once we had reached the top we were elated. We found our house and landmarks, which looked like a little speck. We could see for miles and miles as if we were part of the clear blue sky. I felt like a giant. I thought my perspective had changed. Things looked so different. We started our decent feeling like we had conquered Mt. Everest. And then, it happened.

Around the corner, of a huge boulder, was Katie. My mom wasn't in sight. I was surprised and scared all at once. Unbelievable! Katie made it. But, where was mom? My fear was put to rest as mom soon came around the corner. They laughed, Katie had beaten them to the top of the mountain.

That was one of the best days of my life, not for me personally, but for the fact that someone I loved had accomplished such a great achievement. My sister Katie was so excited and proud of herself. Once again, my perspective was put into place.

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Thank you for supporting wildlife management in Virginia through hunting.

On The Water

by Jim Crosby

Why We Boat?

The facts are clear and confirmed. The mental and physical sensation of warm sunshine on your face, the wind tripping through your hair and the sound of rushing water sweeping down your hull offers a richness and depth of emotion that can put the rest of your life in perspective. We enjoy recreational boating and fishing for a variety of reasons all of which can be summarized with: release from stress, rest and relaxation; all mixed with the opportunity to spend time with family and friends, and to laugh and have fun.

Devoted recreational boaters and fishermen know this from first-hand experience, but now it has been confirmed by some fresh research conducted by the National Boating and Fishing Foundation. They set out to learn why people boat and fish in America today and only learned what most of us practitioners already know but don't necessarily want to share with the rest of the population.

The researchers state, "Above all, boaters and anglers are attracted to recreational and leisure activities that provide a release from stress. From a list of 29 attributes, 'release from stress' received a mean score of 4.54 on a 5-point scale where the higher the score, the more important the attribute for enjoyment of leisure and recreational activities. The importance of release from stress is so paramount that it does not differentiate between boaters and anglers, active, lapsed or prospective. Virtually all are looking for release from stress. Other characteristics are also important to the enjoyment of leisure and recreational activities including having the opportunity to laugh, being restful, energizing, exciting and providing a sense of accomplishment."

For instance, the research tells us, "Boaters and anglers tend to view themselves as being family oriented, liking the outdoors, smart, educated and not minding getting dirty. They are less likely to see themselves as introverted, hip or cool (I have to question the hip and cool bit). In spite of these common traits, boaters and anglers tend to view themselves in slightly different ways. Boaters tend to see themselves as more 'social' than do anglers."

Dah, who among us didn't already know that!

Another startling fact the statistics reveal: "Family Folk comprises the largest segment of boaters and anglers at 28%. Thoughtful Loners are second in size with 26% of boaters and anglers. Both Thrill Seekers and Leisure Seekers represent 23% each." That must surely account for the johnboats and Jet Skis we encounter because we all know they come from opposite ends of the pole.

And now, here's another sensational revelation: "Based on reaction to a list of 39 lifestyle traits, current and prospective boaters and anglers can be described as 'down to earth' in terms of their lifestyles. They tend to value relationships more than possessions (until someone drops a $350 rod and reel overboard). They like to live in unpretentious ways in that they dress casually and buy clothes for comfort. They want people to take them for what they are and they try to make their clothes last. (So that's why the badly worn, faded and frayed outfit is our first identifying mark). They seem to adopt a 'back to basics' philosophy in that they are concerned about the direction society is headed, and they like spending free time relaxing at home (except during good weather in boating and fishing season). They feel that they hold fast to their beliefs and are not swayed by other people (especially pollsters)."

The inserts, of course, are mine.

And that's why I call you my friends and fellow inhabitants of this great country of rivers, waterways, bays and ocean access. Here's to one of the greatest identified sectors of our society—my fellow bait-drowners and wake-makers! Can't we just keep it to? □

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RECIPES

by Joan Cone

A Potpourri of Seafood

Virginia ranks third in the nation in fish and shellfish landings. Total pounds in 2001, the latest available figures, were 561,708,000 with a dockside value of $119,382,000.

As shrimp, scallops, mussels and crabs are readily available, why not treat yourself to these easy recipes?

Shrimp In Wok
Steamed Mussels
Scallops Almondine
Crab Salad In Lime Mold

Shrimp in Wok

(Any large, deep skillet will serve.)

1 pound raw, peeled and deveined shrimp, fresh or frozen
1 teaspoon corn starch
¼ teaspoon ginger
⅛ teaspoon garlic powder
2 tablespoons cream sherry
2 tablespoons soy sauce
½ cup low sodium chicken bouillon
2 tablespoons vegetable oil
1 package (6 ounces) Chinese pea pods, thawed
1 can (5 ounces) sliced water chestnuts, drained

Thaw shrimp in refrigerator if frozen. Combine corn starch, ginger and garlic powder. Then blend in sherry, soy sauce and bouillon; set aside. Place wok on high heat and when hot, add oil. When oil is hot, add shrimp and stir-fry about 1 minute. Add peas and stir-fry 2 minutes. Then stir in water chestnuts. Add cornstarch mixture and stir until it boils and thickens. Serves 3.

Steamed Mussels

3 to 4 dozen live mussels in shell
2 tablespoons butter
1 small onion, chopped
1 cup white table wine
2 tablespoons chopped parsley

Scrub mussels with a stiff brush. Pull or cut off beards. In a large kettle, melt butter. Add onion and cook until soft, stirring occasionally. Add wine and parsley; bring mixture to a boil. Add mussels, cover and simmer gently until mussels have opened, about 5 to 8 minutes. Discard any that have not opened. With a slotted spoon, remove mussels from kettle and place in individual soup bowls. Pour cooking liquid evenly over servings. Serve at once. Serves 3 to 4.

Scallops Almondine

2 pounds scallops, fresh or frozen
Salt and pepper to taste
½ cup flour
½ cup slivered almonds
½ cup butter
2 tablespoons chopped parsley

Thaw scallops if frozen. Rinse in cold water to remove any remaining shell particles. Drain. Sprinkle scallops with salt and pepper. Roll in flour. In a 10-inch heavy skillet or electric frypan, sauté almonds in melted butter until lightly browned. Remove almonds. Add scallops and continue sautéing. When scallops are brown on one side, turn carefully and brown on other side. Cooking time will be approximately 4 minutes. Add parsley and almonds and serve immediately. Serves 6.

Crab Salad in Lime Mold

1 pound blue crabmeat, fresh or pasteurized
1 can (1 lb., 4 ½ oz.) pineapple tidbits, reserve juice
½ cup chopped pecans
½ cup mayonnaise or salad dressing
1 teaspoon lemon juice
Salt to taste

Remove any pieces of shell or cartilage from crabmeat. Drain pineapple, reserving juice. Combine pineapple, crabmeat, pecans, mayonnaise, lemon juice and salt. Toss lightly.

Lime Mold

1 package (6 ounces) lime flavored gelatin
1½ cups boiling water
2 cups reserved pineapple juice and water to make volume
¼ cup fresh lemon juice

Dissolve gelatin in boiling water. Add pineapple juice and lemon juice. Mix well. Pour into a 1-quart ring mold. Chill until firm. Unmold on salad greens and fill center with crabmeat salad. Serves 6. □

* Source: Virginia Marine Products Board.

VIRGINIA AGRICULTURE
Virginia's Finest

Naturally Wild

story and illustration
by Spike Knuth

Royal Tern

Sterna maxima

Virginia's coast is home to a wide variety of bird life. Herons, egrets, plovers and other shorebirds share the sand islands and beaches with gulls and terns, the most visible of these birds as they glide and soar, searching the waves for food.

The terns can be identified by their choppy wing beats and by the fact that they hold their heads and bills pointed downward. One of the larger terns is the royal tern, which measures 18 to 21 inches in length.

They are bluish-gray above, shading to white on its rump. The sides of the head, the chin, throat undersides and tail are all white. They also show a white forehead and a black crested head. The slim bill is bright orange to yellowish-orange. The first five primaries of its wing are grayish-black and the tail is forked.

The calls of the royal tern are short, shrill sounds described as "tsirr" or "kree," but they also utter a more melodious-like whistled call.

Royal terns can be seen in large flocks resting on sand spits, usually facing into the wind. They feed mainly on small fish of all kinds. They fly on narrow, pointed wings, scanning the water for small fish. Suddenly they'll hesitate, and hover briefly before plunging into the water, often with considerable force.

They begin nesting in late-May forming large colonies on sand bars and sandy islands. Known as "colony nesters," they are so closely packed that a bird's nesting territory is about as far as it can reach with its bill while sitting on the nest. Sometimes other terns and shorebirds nest with or near them.

The nests are merely a scrape or hollow in the sand. Two or three eggs are laid. They are grayish or buffy in color, marked with brown, gray and black. The young hatch out in about 20 days. One wonders how parent birds can find their young, but it's likely they identify them by markings and calls. By late-June or July the colony is at its greatest numbers. Like other coastal nesters, flood tides often destroy early nests and re-nesting may go on into August.

Royal terns normally winter along the Gulf Coast and points south, but occasionally a few may stay around during mild winters. They have been seen up the James River as far as Jamestown during the winter months. They are decidedly birds of saltwater and are rarely, if ever, seen on inland freshwater lakes, like a similar species the Caspian tern. □

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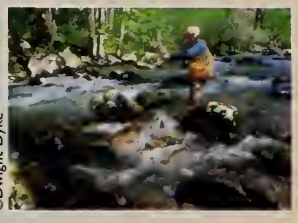

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